

**REMARKS**

Reconsideration of this application and entry of the foregoing amendments are respectfully requested. Applicants initially note with appreciation that the Examiner has withdrawn the rejection of Claims 9, 11 and 12 under 35 USC §101, the rejection of Claims 1, 3 – 9, 11 and 12 under 35 USC §112 second paragraph, and the rejection of Claims 1, 3 – 9, 11-17, 31, 32 and 37-39 under 35 USC §102(a). The Examiner has allowed Claims 9, 11, 13, 14, 16, 17, and 37-39, and has indicated that Claims 1, 3-8, 12, 15, 31 and 32 are “free of the art of record”.

The Examiner has maintained the rejection of Claims 1, 3 – 8, 31 and 32 under 35 USC §112, first paragraph and has added rejections for double patenting under 35 USC § 101. In order to expedite prosecution, Claims 1 and 32 have been amended. Support for the amendments to Claims 1 and 32, as well as for the newly submitted claims, can be found throughout the disclosure, in the claims as originally filed, as well as in the allowed claims.

New Claims 40-47 are dependent on allowed Claim 37, and further define the sequences of the GCG repeat. Claim 48 is patterned after allowed Claim 13, without the step of obtaining the sample. Claim 49, dependent on Claim 48, further defines the “n”, as supported in allowed claim 13. Claim 50, which is also dependent on Claim 48, is patterned after allowed Claim 16, except for its dependency and the further recitation of the GCG repeat sequence. Claim 51, also dependent on Claim 48, is patterned after allowed Claim 14, except for its dependency and the further recitation of the GCG repeat sequence. Claim 52, dependent on Claim 50, is patterned after allowed Claim 17, except for its dependency and the further recitation of the GCG repeat sequence.

Claims 1, 9, 11 – 14, 16 –17, 32, 37 – 39 and 40 -52 are now pending.

**Rejection under 35 USC § 112 first paragraph**

Claims 1, 3-8; 31 and 32 stand rejected under 35 USC §112, first paragraph. The Examiner maintains that “the skilled artisan cannot envision the detailed structure of the claimed PAB II gene including any variant isolated from any human encompassed by the instant claims”. Applicants respectfully traverse the rejection as follows.

Firstly, Claims 3-8 and 31 have been cancelled without prejudice, in order to advance the prosecution of this application. Further, it is respectfully submitted that Claim 1, as now presented, specifies (1) the sequence of the GCG repeat; (2) the phenotype associated therewith; and (3) introduces the sequence set forth in SEQ ID NO:18, except for the 1283-1306 sequence, which is replaced by ATG (GCG)<sub>6+n</sub> GCA. It is respectfully submitted that the claim is fully supported by the application as filed and that the person skilled in the art would recognize that the inventors had possession of the claimed human PAB II gene. Claim 32 has been amended to now be dependent on amended Claim 1. It recites that n=0 and that the sequence is as set forth in SEQ ID NO:18. The sequence set forth in Figure 4, which gave rise to SEQ ID NO:18, is clearly and specifically supported and enabled in the instant description (as are the different GCG variants).

In view of the above and foregoing, Applicants respectfully request that the Examiner withdraw the rejection of Claims 1 and 32 under 35 USC § 112, first paragraph.

#### Rejection under 35 USC §101

The Examiner states that “should claim 1 be found allowable, claims 4, 7-9 will be objected to under 37 C.F.R. 1.75 as being a substantial duplicate thereof”. Applicants believe that the Examiner intended to recite “claims 7-8”, since Claim 9 is allowed, and since the double patenting rejection is based on the fact that “claims 7-9 only describe the source of the sequence”. This is clearly not the case for Claim 9. In view of the cancellation of Claims 4 and 7-8, it is respectfully submitted that this rejection has been rendered moot.

Similarly, the Examiner objected to Claims 12 and 15, as being substantial duplicates of Claims 9 and 11, and Claims 13 and 14, respectively. In view of the cancellation of objected Claims 12 and 15, it is respectfully submitted that this rejection has also been rendered moot.

#### CONCLUSION

The rejections of Claims 1, 9, 11 – 14, 16 – 17, 32, 37 – 39 and 40 – 51 have been overcome by the present remarks, and by the amendments to the claims. Applicants request that the Examiner reconsider and withdraw all remaining rejections and objections.

If the Examiner believes that a telephone conversation would expedite prosecution of the application, the Examiner is invited to contact Elizabeth W. Mata at (915) 845-3558 (Mountain Time Zone). If Elizabeth W. Mata cannot be reached, the Examiner is invited to contact David E. Brook at (978) 341-0036.

Respectfully submitted,

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